

ACCOUNTING FOR FEMINISATION AND THE FEMINISATION OF ACCOUNTING IN IRELAND: GENDER AND SELF-EVALUATION IN THE CONTEXT OF UNCERTAIN ACCOUNTING INFORMATION

*Ciarán Ó hÓgartaigh**

Introduction

Accounting is a discipline defined by its context (Freear, 1977). In recent years, the context of accounting has changed dramatically in a number of respects. The transactions and events which accounting attempts to represent are subject to increasing uncertainty. Accounting standard-setters have reacted by requiring that financial statements recognise and disclose the "substance" of transactions rather than their legal form. More extensive disclosures of uncertainty are also required.

Such changes in the context of accounting reflect external changes in the nature of economic transactions which financial accounting is bound to represent. There are, however, further changes in society which have impacted on the accounting profession and which may, in future, transform the manner in which the profession deals with the uncertainty it faces. These include the numbers entering the profession. There are also an increased number of graduates entering the profession. A further significant change, reflecting a change in trends within society generally, is the increased numbers of women members of the profession. This has led to the emergence of a literature in accounting examining the role of women in the profes-

* Dublin City University Business School.

sion, the implications for professional practice and for accounting in society. However, the relationship between feminisation and judgement using accounting information in the context of uncertainty has not been heretofore explored in any great detail. As Maines (1996: 98) comments, "research on external users has not thoroughly exploited the heterogeneity of users of financial reports".

This paper embarks on such an exploration by examining the potential relationship between gender and confidence, given the disclosure of uncertainty in financial statements. The focus is primarily, though not exclusively, on men and women as users of financial statements. The paper is in three main parts. The next section outlines how accounting is shaped by uncertainty. It also describes the extent of female involvement in the accounting profession and explores its implications as reflected in the accounting literature. In particular, gender differences in perceptions of, and reactions to, uncertainty are examined. The paper then examines whether such differences are also found in an accounting setting characterised by uncertainty. The third section outlines an approach to the exploration of the effect of gender on the judgement and confidence of users of uncertain accounting information. It develops, first, a framework within which the uncertain context of financial statements is disclosed and, second, an experimental approach to the examination of gender effects on judgement and confidence in that accounting setting. The fourth section presents the research results. The paper concludes with a brief discussion of the potential implications of the research findings for the accounting discipline.

Uncertainty, Gender and the Changing Shape of Financial Reporting

Uncertainty and Financial Reporting

Tweedie and Whittington (1990) outlined what they saw as a broad consensus regarding the purpose of financial accounting. One of these generally accepted notions about financial reports is that they are intended to provide users with information for decision-making. Users of financial statements are defined broadly by the Accounting Standards Board (ASB), which is the accounting standard setting body in the United Kingdom. (The ASB's financial reporting standards are promulgated by the Institute of Chartered Accountants in Ireland virtually in their entirety for application in the Republic of Ireland.) Users as defined by the ASB (ASB, 1999) include not only sharehold-

ers but also, for example, employees, those in the environment of the reporting entity, customers and the public.

If one defines accounting as a discipline that is concerned with information and with informing decision-makers (ASB, 1999), the influence of uncertainty on the discipline is clear. Arguing that there is broad agreement that financial reports should provide financial information to users, Tweedie and Whittington (1990: 91) comment that users seek "economic relevance". They distinguish between "economic relevance" and "economic reality", continuing that "economic reality" carries with it connotations that are "inappropriate in a realistic setting of uncertainty". This finds echoes, though not exact parallels, in Stamp's argument (1980) that as economic reality is complex and ambiguous, its presentation in financial statements cannot be unambiguous. It seems that to be useful in decision-making, information must represent the "substance" of transactions and events in a way which is relevant to users, but that in doing so, accounting information must struggle with the uncertainty or ambiguity of that substance. Uncertainty, then, is central to financial reporting. Users are concerned with uncertainty. They are also concerned with information that has "economic relevance", which, in an uncertain world, is uncertain. Tweedie and Whittington (1990) conclude that the problems of financial reporting (such as recognition and measurement) therefore have uncertainty as a common theme.

Gender and Accounting

The accounting profession itself has in the last number of decades experienced increasing numbers of women members. Table 1 sets out the numbers of women members of the Institute of Chartered Accountants in Ireland (the largest Irish-based professional body of accountants, established in 1888) in the 30 years from 1969 to 1999. The numbers illustrate a significant increase in women members over the period. (The small number of women members in 1969 is particularly startling given that, in 1929, there were 3 female chartered accountants (Ó hÓgartaigh and Ó hÓgartaigh, 1999).)

This increase in women's membership reflects trends in society generally and in other professional accounting bodies (Ciancanelli et al., 1990). These trends have also led to an increased discussion in the accounting literature regarding the potential effects of feminisation. This has included, most notably, the work of Westcott and Seiler (1986), Hooks (1992), Loft (1992), Roberts and Coutts (1992), Kirkham and Loft (1993). They have argued, in particular, for a wider historical

analysis of the issues arising from "the development of a situation in which women are overwhelmingly dominant in the lower levels of functions, namely the clerk and bookkeeper jobs, and in a minority in the higher levels, namely accountancy" (Loft, 1992: 367). Barker and Monks (1998) have also examined a number of these issues in an Irish setting.

TABLE 1: NUMBERS OF FEMALE MEMBERS OF THE INSTITUTE OF CHARTERED ACCOUNTANTS IN IRELAND

Year	Male		Female	
	Numbers	%	Numbers	%
1969	2,242	99.5	12	0.5
1979	3,612	95.2	182	4.8
1989	6,078	89.1	739	10.9
1999	8,811	78.7	2,385	21.3

Source: Membership department of the Institute of Chartered Accountants in Ireland. I am particularly grateful to Paula Dreelan at the Institute for furnishing me with these numbers.

This change in the composition of the accounting profession is potentially significant for other reasons. Along with studies of the historical role of females in accounting, there have also been several studies on the relative confidence of females in the context of uncertainty, although none of these has been in the context of accounting tasks. These studies have been carried out in both laboratory and organisational settings. Maccoby and Jacklin (1974) in a comprehensive review of the literature at the time, found that, in a variety of contexts, women in general have less positive "self-referent" attitudes than men. In particular, they concluded that women have lower expectations of their own performance, value their abilities lower and also evaluate their own completed performance lower than their male counterparts.

Deaux and Farris (1977) and Lenney (1977) drew similar conclusions. Deaux and Farris (1977) and Lundeberg et al. (1994) concluded that men rated their own performance higher than women, even when more objective scores of their performances were similar. Furthermore, Lenney (1977) argued that where feedback is absent or where social cues are salient, men tend to overestimate and women tend to underestimate their own performance. However, Lenney (1977) suggested that gender differences are unlikely to occur where the individuals in question are given clear information regarding their

ability to perform the task. Similarly, a subsequent study (Lenney et al., 1980) found that gender differences in self-evaluation were less marked when performance criteria were clear.

In organisational settings, findings differed. Deaux (1979) found gender differences similar to those of Deaux and Farris (1977) and Lenney (1977). On the other hand, Snyder and Bruning (1979) and Shore and Thornton (1986) observed no gender-based differences in self-ratings. Lundeborg et al. (1994: 119) concluded in a narrow context that there was "scant evidence to support the notion that women have low confidence". Shore and Thornton (1986) argue, however, that in organisational settings, various factors, such as feedback, may influence such ratings, rendering these findings consistent perhaps with those of Lenney (1977) in the laboratory setting.

The findings in the literature are, therefore, somewhat inconsistent (and may reflect changes in confidence over time). They suggest, however, that the expressions of confidence of women in their use of accounting information will be lower than those of men where that accounting information is characterised by uncertainty and the absence of "correct answers" and feedback. Furthermore, it may be hypothesised (after Deaux and Farris, 1977) that this difference will be evident even when their judgements are similar. The objective of the present research is, therefore, to assess whether there is a significant difference between the confidence of men and women when making decisions based on uncertain accounting information, where "correct answers" are unsought and little feedback is given to the participants. The following section outlines the approach adopted in achieving this objective. In doing so, it sets out, first, a framework within which uncertainty may be disclosed in financial statements and, second, the means by which the effect of such disclosures are explored in this research.

Research Approach

The disclosure of uncertainty in financial statements

Mock and Vertinsky (1985: 6) comment that doubts about data in accounting may be admitted or ignored based on shared rules of the language of accounting. Such shared rules are formed by accounting standards (in the United Kingdom and Ireland, "Financial Reporting Standards" or FRSs) and Generally Accepted Accounting Principles (GAAP). Financial reporting has recently addressed uncertainty in

two ways: in a general sense, through reporting the uncertain nature of financial statements and, in a particular sense, by disclosing the parameters of uncertain items in the financial statements.

With respect to the first of these, one relatively recent suggestion is a disclosure of the uncertain nature of financial statements. This has been recommended, for example, by the Accounting Standards Executive Committee (AcSEC) in the US (AcSEC, 1994), Boritz (1990) and the American Institute of Certified Public Accountants (AICPA, 1987). Among these is the proposal of the AICPA *Task Force on Risks and Uncertainties* (AICPA, 1987) to disclose an explanation that the preparation of financial statements requires the use of estimates by management. An example of this disclosure is given in Figure 1.

FIGURE 1: THE DISCLOSURE OF THE BASIS OF FINANCIAL STATEMENT PREPARATION (AICPA, 1987: 13)

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the reporting date and revenues and expenses during the reporting period. Actual results could differ from those estimates.

This form of disclosure is, to an extent, embodied in the Directors' Responsibility Statement included in the annual report of publicly quoted companies in Ireland. It is not the objective of this Statement to disclose the nature of financial statements *per se* but to clarify the responsibilities of the directors with regard to published financial statements. By doing so, however, it does set out that the financial statements are prepared on the basis of "suitable accounting policies, consistently applied and supported by reasonable and prudent judgements and estimates" (Committee on the Financial Aspects of Corporate Governance, 1992, Note 12).

With regard to particular disclosures of uncertainty in financial statements, one of the standards dealing with uncertain events is FRS 12, *Provisions and Contingent Liabilities and Contingent Assets* (ASB, 1998). This Standard requires the recognition or disclosure of assets and liabilities depending on three broad categories of probability (ASB, 1998, Appendix II and paragraphs 27–35). "Virtually certain" assets and liabilities are recognised in the financial statements. "Probable" outflows arising from past transactions or events are recognised as liabilities in the financial statements if they can be

reliably estimated. Other liabilities are disclosed in the notes to the financial statements unless the probability of their occurrence is remote. On the other hand, an asset is disclosed where its occurrence is probable. Contingent assets and liabilities arising from potentially "remote" events are neither recognised nor disclosed. If the outcome is "inestimable", uncertain gains and losses which are not remote should be disclosed, but with no indication of the (inestimable) outcome.

The wider disclosure of such "inestimable" uncertainties is suggested in the ASB's draft *Statement of Principles*. The ASB (1995: 78) concedes that where assets and liabilities cannot be estimated with sufficient reliability, "simply reporting a single amount may create an impression of certainty of outcome that does not in fact exist". In such instances, it may be necessary to disclose "the significant assumptions and measurement basis used, the range of possible outcomes, and the principal factors that affect the outcome" (ASB, 1999: 91). Similarly, the AcSEC *Statement of Position: Disclosure of Certain Significant Risks and Uncertainties* (AcSEC, 1994: 5) "requires disclosures regarding estimates used in the determination of the carrying amounts of assets or liabilities or in disclosure of gain or loss contingencies". The Canadian Institute of Chartered Accountants (CICA) *Exposure Draft Measurement Uncertainty* (CICA Accounting Standards Board, 1993) and the Australian Accounting Standards Board (AASB) *Statement of Accounting Concepts No. 4* (AASB, 1992) contain the same suggestion. A similar disclosure is required in circumstances of uncertainty by FRS 12 (ASB, 1998, paragraph 90) and by FRS 6, *Acquisitions and Mergers* (ASB, 1994, paragraph 24). As described below, this research adopts these disclosures as a means of examining reactions to the disclosure of uncertainty.

Examining reactions to the disclosure of uncertainty

The research approach is experimental. The experiment discloses differing layers of the same level of uncertainty based on the requirements of FRS 12 and FRS 6. Remote uncertainties are disclosed, as these, although they exist, are at the edge of uncertainty and are not reflected currently in financial statements. Remote is defined by the CICA *Exposure Draft Measurement Uncertainty* (1993) as a probability of less than 15 per cent. The adoption of this relatively narrow approach to disclosure in this research is defensible theoretically and pragmatically. On theoretical grounds, Thornton (1983) discusses the problem of "zero-infinity" risks: those having a

chance of occurrence close to zero but an outcome with almost infinite consequences. These remote events need not currently be disclosed in financial statements although "remote percentages of risk lose their significance to those unfortunate enough to be 100 per cent involved" (McCarthy J in *Walsh v. Family Planning Services Limited*, The High Court of Ireland, 1987, No. 1053P). Pragmatically, in assessing changes in assets and liabilities, their accounting treatment (as well as the level of probability that triggers them) should be symmetrical. Assets and liabilities are treated symmetrically in the financial statements when the probability of occurrence is "virtually certain" (characterised by little or no uncertainty) or "remote" (characterised by a high level of uncertainty). The intention, therefore, is to explore disclosures where there is a remote possibility of an event impacting on specified elements of the financial statements. The outcome of the remote event is inestimable.

Kahneman and Tversky's Value Function (based on the postulates of their Prospect Theory (Kahneman and Tversky, 1979)) suggests, in brief, that decision-makers are risk averse when gaining and risk seeking when losing. To avoid such potential confounding effects on behaviour, potential losses only (i.e. decreases in assets or increases in liabilities) are presented. The losses in assets and liabilities are of a nature that would be (potentially though not actually) recognised in the profit and loss account (rather than, say, the Statement of Total Recognised Gains and Losses) of the year under consideration. The losses therefore concern current assets and current liabilities. Furthermore, the potential extent of losses must be identical. However, in financial statements generally, the maximum potential decrease in an asset, for example, is limited to the amount at which the asset is stated in the balance sheet, while potential liabilities may be unlimited. For the purposes of this research, a liability must therefore be identified which could be "capped" so as to limit potential losses. "Products sold under guarantee" is such a liability.

To summarise: in the case of liabilities, a scenario is presented where sales worth a specified amount — £900,000 — have been sold under guarantee. There is a remote possibility of the guarantees arising and, if they arise, the outcome is inestimable (although limited to £900,000). In the case of assets, stock worth £900,000 is potentially obsolete. There is a remote possibility of obsolescence and, if the stock is obsolete, the extent of the losses is inestimable (although limited to £900,000).

There are, therefore, two layers of uncertainty disclosed in this research. The first, comprising one disclosure X_1 , reveals the

uncertain nature of financial statements as outlined in Figure 1. The second relates to assets and liabilities (two sets of disclosure) with three different disclosures (broad disclosure followed by a clarification of occurrence and outcome) in each case ($2 \times 3 = 6$ disclosures). There are, therefore, seven levels of disclosure as follows:

- X_1 = disclosure regarding the uncertain nature of financial statements
- X_2 = disclosure that there is a remote chance that stock may be obsolete with an inestimable outcome
- X_3 = disclosure that there is remote chance of a liability for sales under guarantee with an inestimable outcome
- X_4 = as X_2 with more disclosure regarding the inestimable outcome
- X_5 = as X_3 with more disclosure regarding the inestimable outcome
- X_6 = as X_4 with more disclosure concerning the remote chance of occurrence
- X_7 = as X_5 with more disclosure concerning the remote chance of occurrence.

Disclosure X_1 was introduced in Figure 1. Disclosures X_2 to X_7 are reproduced in Figures 2 to 7.

FIGURE 2: DISCLOSURE X_2 — THAT THERE IS A REMOTE CHANCE THAT STOCK MAY BE OBSOLETE WITH AN INESTIMABLE OUTCOME

Extract from the audited financial statements:

Stock at 31 December 1994 includes finished goods costing approximately £900,000 which may be obsolete. The Directors are unable to estimate the net realisable value of this stock. The likelihood that this stock is obsolete is remote. In the light of the uncertainties outlined, no provision has been made in the financial statements in respect of this stock.

FIGURE 3: DISCLOSURE X₃ — THAT THERE IS REMOTE CHANCE OF A LIABILITY FOR SALES UNDER GUARANTEE WITH AN INESTIMABLE OUTCOME

Extract from the audited financial statements:

Some sales of the Company have been made under guarantee. The Directors are unable to estimate the ultimate cost of these obligations. The likelihood that a claim will be made against the Company in respect of these guarantees is remote. The estimated cost of fulfilling the Company's obligations if all guarantees were claimed would not exceed approximately £900,000. In the light of the uncertainties outlined, no provision has been made in the financial statements in respect of the guarantees.

FIGURE 4: DISCLOSURE X₄ — AS X₂, WITH MORE DISCLOSURE REGARDING THE INESTIMABLE OUTCOME

Extract from the audited financial statements:

Stock at 31 December 1994 includes finished goods costing £900,000 which may be obsolete. The Directors estimate that the likelihood that this stock is obsolete is remote. The net realisable value of obsolete stock is normally between 35% and 65% of cost. In the light of the uncertainties outlined, no provision has been made in the financial statements in respect of this stock.

FIGURE 5: DISCLOSURE X₅ — AS X₃, WITH MORE DISCLOSURE REGARDING THE INESTIMABLE OUTCOME

Extract from the audited financial statements:

Some sales of the Company have been made under guarantee. The Directors estimate that the likelihood of a claim being made is remote. The cost of claims under guarantees are normally between 35% and 65% of the total obligation. The estimated cost of fulfilling the Company's obligations if all guarantees were claimed would not exceed approximately £900,000. In the light of the uncertainties outlined, no provision has been made in the financial statements in respect of these guarantees.

FIGURE 6: DISCLOSURE X_6 — AS X_4 , WITH MORE DISCLOSURE CONCERNING THE REMOTE CHANCE OF OCCURRENCE

Extract from the audited financial statements:

Stock at 31 December 1994 includes finished goods costing £900,000 which may be obsolete. Based on past experience, the Directors estimate that the likelihood that this stock is obsolete is between 5% and 8%. The net realisable value of obsolete stock is normally between 35% and 65% of cost. In the light of the uncertainties outlined, no provision has been made in the financial statements in respect of this stock.

FIGURE 7: DISCLOSURE X_7 — AS X_5 , WITH MORE DISCLOSURE CONCERNING THE REMOTE CHANCE OF OCCURRENCE

Extract from the audited financial statements:

Some sales of the Company have been made under guarantee. The estimated cost of fulfilling the Company's obligations under guarantees would not exceed £900,000. Based on past experience, the Directors estimate that the likelihood of a claim being made is between 5% and 8%. The cost of claims under guarantees are normally between 35% and 65% of the total obligation. In the light of the uncertainties outlined, no provision has been made in the financial statements in respect of these guarantees.

The disclosures adopted in this research therefore comprise disclosures proposed in a general context (e.g. by the AICPA and the ASB) or in a specific context (by the ASB in FRS 6). The level of uncertainty does not change: it is merely revealed. The financial statements are as uncertain in each disclosure; the first disclosure (X_1) merely reveals that this is so. The uncertain events are always remote (and therefore not currently disclosed) and inestimable. Further disclosure merely reveals the basis on which this judgement is made.

A research instrument is designed encompassing these disclosures: in order to enrich the potential findings, the disclosure relates to five different reporting entities. The profit and loss account and balance sheet for three years of five companies are presented, each containing only the disclosures outlined. Each company is approximately the same size. Each has a share capital of 1,000,000 £1 shares. The average turnover of the five reporting entities was £10,693,000 with the average of each entity's turnover over the three years in question not more than 18 per cent more or less than that average. In

order to control for the effects of asymmetrical reaction to gains and losses postulated by, for example, Kahneman and Tversky (1979) all the entities report profits in excess of the potential losses disclosed of £900,000.

All the companies are in the same sector (information technology). This sector is chosen as it is characterised by uncertainty and the scenarios of obsolete stock and sales under guarantee are appropriate to the sector. The financial structure of one of the companies (e.g. its profitability, liquidity and fixed asset levels) is based on a real company of a similar size within the sector, Printech International plc. The other companies are limited variations of that structure.

Each company has different characteristics based on the ratios suggested to be indicative of accounting *beta* by Beaver et al. (1970) (i.e. growth, liquidity, gearing, earnings variability and earnings covariability). A number of ratios characterising each entity are represented in Figure 8.

FIGURE 8: SELECTED RATIOS OF REPORTING ENTITIES

Company	High Growth (HG)	Declining (DEC)	Stable (STA)	High debt (HD)	No debt (ND)
Ratio					
Turnover growth	High	Low	Average	Average	Average
Interest cover	Average	High	Average	Low	High
Liquidity	Average	Average	Average	Low	High
Debt/Equity	High	Average	Average	High	Low

In summary, therefore, the research instrument attempts to capture a variety of characteristics in the five reporting entities comprising the instrument. Each of the entities has a primary but not exclusive characteristic revolving around levels of turnover and borrowing. The nature of the industry and the constraints of maintaining a level of profitability in excess of £900,000 resulted in some of the reporting entities displaying other characteristics such as high levels of assets.

A between-group design is used. Such a design varies the disclosures presented to participants between groups instead of within groups. This strengthens the validity of the experiments by eliminating "ordering" and "demand" effects, which are highlighted by Campbell (1957), Orne (1962) and Libby (1979) as the major limitations of within-group design. A between-groups approach is not without its limitations. The most significant of these is the question of

whether differences between the reactions of the groups are due to differences between groups rather than the disclosures themselves. Campbell and others (e.g. Donaldson and Suppes, 1957; and Kinney, 1986) suggest that this confounding factor may be limited by the random allocation of participants to each group and by having large enough groups that individual differences will be diluted. Malhotra (1993: 228) comments that "randomisation is the preferred procedure for ensuring the prior equality of experimental groups".

Subjects are therefore randomly assigned between the seven experimental groups. Each group receives the profit and loss account and balance sheet of the five reporting entities, along with one of the seven disclosures outlined in Figures 1 to 7. They are asked to assess the performance and position of each company on a scale divided into deciles, having endpoints of 0 to 100 labelled "poor" and "excellent", respectively, with a midpoint of "average". This is similar to the mechanism adopted by Moser (1989) in his experimental exploration of investment decision-making. Participants are asked to indicate their confidence (on a scale of 0 to 100) in their assessments of the performance and position of each reporting entity. They are not asked to stake any investment or other wealth in the companies. This avoids the potentially confounding effects of risk attitude and wealth differentials discussed, for example, by Selto and Cooper (1990).

TABLE 2: COURSE ATTENDANCE OF EXPERIMENTAL SUBJECTS

Course attended	Number	%
None	90	35.3
BA in Accounting and Finance	75	29.4
MBS in Accounting	34	13.3
MSc in Investment and Treasury	39	15.3
MBA	17	6.7
	255	100

There are 255 experimental subjects in all (66.7 per cent of those contacted). The first section of the experimental instrument identifies some broad characteristics of the experimental subjects. These include age, gender, current and past educational background, workplace and employment experience. The average age of the subjects was over 23 years of age. A total of 165 (64.7 per cent) of the subjects were attending a course of study in Dublin City University (see Table 2); of these, 75 (29.4 per cent) were third year students of the BA in Accounting and Finance degree, 34 (13.3 per cent) were

MBS in Accounting students, a further 39 (15.3 per cent) were students on the MSc in Investment and Treasury, while 17 (6.7 per cent) were MBA students. The remaining 90 subjects were graduates who were not attending a course of study at DCU, 60 being graduates of the MBS in Accounting, 22 graduates of the MSc in Investment and Treasury and the remaining eight being graduates of the BA in Accounting and Finance and other courses.

Each of these courses is a specialism in accounting (the BA in Accounting and Finance and the MBS in Accounting) or contains a strong element of analysis of accounting information. Subjects such as these were used, for example, by Chen and Summers (1981) and Birnberg and Slevin (1976) who used MBA students and by Chesley (1986) who used MBA and chartered accounting students. The composition of the participants also reflects those joining the accounting profession, as the courses attended by them are ones leading to careers in accounting and/or the use of financial statements.

The experimental subjects were also asked a series of multiple choice questions to determine their aptitude in the use of financial statements. They were also asked their opinion concerning the reliability of a number of financial statement items. Those experimental subjects who achieved less than or equal to 40 per cent in the aptitude questions were excluded from consideration. The number of experimental subjects excluded in that manner totalled 67, the remainder being 188. There is no significant gender difference in aptitude or attitude towards financial statement information. Of the 188 cases remaining, the numbers of men and women are represented in Table 3.¹

TABLE 3: GENDER OF EXPERIMENTAL SUBJECTS

Gender	Number	%
Male	109	58
Female	79	42
	188	100

Research Findings

Tables 4 to 7 outline the research results categorised by gender. It may be noted that, in the case of the assessment of position and performance, the assessments of males and females are broadly similar. No consistent pattern emerges in the assessment of position. There is no significant difference in the assessment of performance,

although the females' assessment of the performance of the reporting entities is consistently higher and higher overall than that of males.

The differences in the expressions of confidence are more marked. The expressions of confidence by females are consistently lower than those of males in the case of both position and performance. They are significantly lower (at a 95 per cent level of confidence) in the case of the performance and position of the stable (STA) and no debt (ND) reporting entities. These findings in the accounting context are strongly consistent with those elsewhere in the literature, as outlined earlier. This is the case even where the assessments of male and female are similar, confirming the findings of Fennema and Sherman (1978) and Zukerman (1987) that "even when female students achieve as well or better than their male counterparts, they tend to underestimate themselves" (in Lundeberg et al., 1994: 114). Analysing the experimental groups further, these findings may be observed consistently across each experimental group, with women expressing lower confidence than men in each instance.

TABLE 4: MEAN ASSESSMENT OF POSITION BY GENDER

	Gender		
	Male (n=109)	% change	Female (n=79)
High debt (HD)	42.2	+6%	45.0
Declining turnover (DEC)	41.7	+3%	42.9
Stable turnover (STA)	59.7	+4%	62.3
High growth (HG)	56.5	-	56.5
No debt (ND)	74.4	-4%	71.6
Overall	54.9	+1%	55.5

TABLE 5: MEAN ASSESSMENT OF PERFORMANCE BY GENDER

	Gender		
	Male (n=109)	% change	Female (n=79)
High debt (HD)	43.0	--	43.1
Declining turnover (DEC)	43.9	+6%	46.5
Stable turnover (STA)	56.7	+6%	60.3
High growth (HG)	62.1	+5%	65.4
No debt (ND)	67.0	+2%	68.2
Overall	54.5	+4%	56.7

TABLE 6: MEAN CONFIDENCE IN ASSESSMENT OF POSITION BY GENDER

	Gender		
	Male (n=109)	% change	Female (n=79)
High debt (HD)	66.9	-4%	64.3
Declining turnover (DEC)	66.8	-7%	62.0
Stable turnover (STA)	68.1	-7%**	63.4
High growth (HG)	67.0	-5%	64.0
No debt (ND)	71.6	-7%**	66.4
Overall	68.1	-6%	64.0

** = significant at a 95 per cent level of confidence.

TABLE 7: MEAN CONFIDENCE IN ASSESSMENT OF PERFORMANCE BY GENDER

	Gender		
	Male (n=109)	% change	Female (n=79)
High debt (HD)	64.3	-1%	63.4
Declining turnover (DEC)	65.4	-3%	63.5
Stable turnover (STA)	66.4	-7%**	61.7
High growth (HG)	66.6	-5%	63.0
No debt (ND)	70.9	-8%**	64.9
Overall	66.7	-5%	63.3

** = significant at a 95 per cent level of confidence.

Conclusion

This paper set out to explore differing gender influences on the assessments of the performance and position of the reporting entities and expressions of confidence in those assessments. The framework within which such disclosures were explored drew on disclosures outlined in the Directors' Responsibility Statement and accounting standards such as FRSs 6 and 12 as well as the ASB's draft Statement of Principles. In the context of these disclosures, females were significantly and consistently less confident than their male counterparts. This was consistent with other studies which found women generally less confident than men. This difference in confidence related to assessments which did not differ significantly. Hence, although the assessments of position and performance by men and women were

broadly similar, women were less confident of those assessments. In broad terms, the implications of this paper are consistent with the comments of Dermer (1973: 512) that "it appears that information usage is an idiosyncratic or subjectively determined process", and that this determination is distilled to a significant extent by gender.

As a result, the uncertainty inherent in accounting may be perceived differently by men than by women. This invites further research exploring gender and judgement in financial analysis and accounting. While this research was structured to assess different perspectives of men and women as users of financial statements, further research may also fruitfully explore differences between men and women as preparers and/or auditors of financial statements. Such research may examine, for example, the decisions or judgements of men and women in accounting as well as their confidence. As much of accounting judgement is based on perceptions of uncertainty, if confidence in the face of uncertainty differs between men and women, so too may conclusions regarding differing probabilities. Chesley (1986) found such differences between the accounting and legal professions, for example.

This is not in any way to suggest that men are more correct or better than women (or vice versa). Rather, as Lundeborg et al. (1994: 120) comment, "perhaps the question that should be pursued is not why women are less confident than men, but why in our culture we hesitate to recognise and admit uncertainty". The (albeit slow) increase in the numbers of women in the accounting profession may lead to a greater awareness of uncertainty in accounting and a greater appreciation that financial reports are more complex and less certain than single numbers imply. As a result, in the context of increased feminisation, the shape and stridency of judgements made in the context of accounting information may change. If so, this may allow the culture of financial reporting to move away from the apparent certainty of single numbers to reflect a broader, more substantial view of the reporting entity.

References

- Accounting Standards Board (1994), *FRS 6: Acquisitions and Mergers*, London: Accounting Standards Board.
- Accounting Standards Board (1995), *Exposure Draft: Statement of Principles*, London: Accounting Standards Board.

Accounting Standards Board (1998), *FRS 12: Provisions, Contingent Assets and Contingent Liabilities*, London: Accounting Standards Board.

Accounting Standards Board (1999), *Revised Exposure Draft: Statement of Principles*, London: Accounting Standards Board.

Accounting Standards Executive Committee (1994), *Statement of Principle: Disclosure of Risks and Uncertainties and Financial Flexibility*, New York: American Institute of Certified Public Accountants.

American Institute of Certified Public Accountants (1987), *Report of the Task Force on Risks and Uncertainties*, New York: AICPA.

American Institute of Certified Public Accountants (1994), *Statement of Principle: Disclosure of Risks and Uncertainties and Financial Flexibility*, New York: AICPA.

Australian Accounting Standards Board (1992), *Statement of Accounting Concepts No. 4, Definition and Recognition of the Elements of Financial Statements*, Australia: Australian Accounting Research Foundation.

Barker, P.C. and Monks, K. (1998), "Irish Women Chartered Accountants and Career Progression: A Research Note", *Accounting, Organizations and Society*, Vol. 23, No. 8, pp. 815-823.

Beaver, W.H., Kettler, P. and Scholes, M. (1970), "The Association between Market Determined and Accounting Determined Risk Measures", *The Accounting Review*, October, pp. 654-682.

Birnberg, J.G. and Slevin, D.P. (1976), "A Note on the Use of Confidence Interval Statements in Financial Statements", *Journal of Accounting Research*, Spring, pp. 153-157.

Boritz, J.E. (1990), *Approaches to Dealing with Risk and Uncertainty*, Toronto: The Canadian Institute of Chartered Accountants.

Campbell, D.T. (1957), "Factors Relevant to the Validity of Experiments in Social Settings", *Psychological Review*, Vol. 54, pp. 297-312.

Ciancanelli, P., Gallhofer, S., Humphrey, S. and Kirkham, L. (1990), "Gender and Accountancy: Some Evidence from the UK", *Critical Perspectives on Accountancy*, pp. 117-144.

Chen K.H. and Summers, E.L. (1981), "A Study of Reporting Probabilistic Accounting Figures", *Accounting, Organizations and Society*, Vol. 6, No. 1, pp. 1-15.

Chesley, G.R. (1986), "Interpretation of Uncertainty Expressions", *Contemporary Accounting Research*, Vol. 2, pp. 179-199.

CICA Accounting Standards Board (1993), *Exposure Draft: Measurement Uncertainty*, Toronto: CICA.

Committee on the Financial Aspects of Corporate Governance (1992), London: Gee.

Deaux, K. and Farris, E. (1977), "Attributing for One's Own Performance: The Effects of Sex, Norms and Outcome", *Journal of Research in Personality*, Vol. 11, pp. 59-72.

Deaux, K. (1979), "Self-evaluation of Male and Female Managers", *Journal of Sex Roles*, Vol. 5, pp. 571-580.

Dermer, J.D. (1973), "Cognitive Characteristics and the Perceived Importance of Information", *The Accounting Review*, July, pp. 511-519.

Donaldson, D. and Suppes, P. (1957), *Decision-Making: An Experimental Approach*, Westport, CN: Greenwood Press.

Fennema, E.H. and Sherman, J.A. (1978), "Sex-related Differences in Mathematics Achievement and Related Factors: A Further Study", *Journal of Research in Mathematics Education*, Vol. 9, pp. 189-203.

Freear, J.F. (1977), "History and Development of Accounting" in Carsberg, B.V. and Hope, A. (eds.), *Current Issues in Accounting*, Oxford: Phillip Allan.

Hooks, K.L. (1992), "Gender Effects and Labor Supply in Public Accounting: An Agenda of Research Issues", *Accounting, Organizations and Society*, Vol. 17, No. 3/4, pp. 343-366.

Kahneman, D. and Tversky, A. (1979), "Prospect Theory: An Analysis of Decision under Risk", *Econometrica*, March, pp. 263-291.

Kinney, W.R. (1986), "Empirical Accounting Research Design for PhD Students", *The Accounting Review*, January, pp. 338-350.

Kirkham, L.M. and Loft, A. (1993), "Gender and the construction of the professional accountant", *Accounting, Organizations and Society*, Vol. 18, No. 6, pp. 507-529.

Lenney, E. (1977), "Women's Self-confidence in Achievement Settings", *Psychological Bulletin*, Vol. 84, pp. 1-13.

Lenney, E., Browning, C. and Mitchell, L. (1980), "What You Know Can Hurt You: The Effects of Performance Criteria Ambiguity on Sex Differences in Self-confidence", *Journal of Personality*, Vol. 24, pp. 306-322.

Libby, R. (1979), "The Impact of Uncertainty Reporting on the Loan Decision", *Research Opportunities in Auditing*, (Supplement to *Journal of Accounting Research*), pp. 35-57.

Loft, A. (1992), "Accountancy and the Gendered Division of Labour: A Review Essay", *Accounting, Organizations and Society*, Vol. 17, No. 3/4, pp. 367-378.

Lundeberg, M., Fox, P. and Puncochar, J. (1994), "Highly Confident but Wrong: Gender Differences and Similarities in Confidence Judgments", *Journal of Education Psychology*, Vol. 86, pp. 114-121.

Malhotra, N.K. (1993), *Marketing Research: An Applied Orientation*, Englewood Cliffs, NJ: Prentice-Hall.

Maccoby, E.E. and Jacklin, C.N. (1974), *The Psychology of Sex Differences*, Stanford, CA: Stanford University Press.

Mock, T.J. and Vertinsky, I. (1985), *Risk Assessment in Accounting and Auditing: A Research Report*, Vancouver: The Canadian Certified General Accountants' Research Foundation.

Moser, D.V. (1989), "The Effects of Output Interference, Availability, and Accounting Information on Investors' Predictive Judgments", *The Accounting Review*, July, pp. 433-448.

Ó hÓgartaigh, C. and Ó hÓgartaigh, M. (1999), "A Man's Trousers On", *Accountancy Ireland*, Vol. 31, No. 5, pp. 22-23.

Orne, M. (1962), "On the Social Psychology of the Psychological Experiment: with Particular Reference to Demand Characteristics and their Implications", *American Psychologist*, November, pp. 776-783.

Roberts, J. and Coutts, J.A. (1992), "Feminization and Professionalization: A Review of an Emerging Literature on the Development of Accounting in the United Kingdom", *Accounting, Organizations and Society*, Vol. 17, No. 3/4, pp. 379-395.

Selto, F.H. and Cooper, J.C. (1990), "Control of Risk Attitude in Experimental Accounting Research", *Journal of Accounting Literature*, pp. 229-264.

Shore, L.M. and Thornton III, G.C. (1986), "Effects of Gender on Self- and Supervisory Ratings", *Academy of Management Journal*, Vol. 29, pp. 115-129.

Skinner, R.M. (1987), *Accounting Standards in Evolution*, Toronto: Holt, Rhinehart and Winston of Canada.

Snyder, R.A. and Bruning, N.S. (1979), "Sex Differences in Perceived Competence: An Across Organizations Study", *Administration in Social Work*, Vol. 28, pp. 349-358.

Stamp, E. (1980), "Accounting Standard-Setting: A New Beginning", *CA Magazine*, September, pp. 38-47.

Sterling, R.R. (1985), *An Essay on Recognition*, Sydney: The University of Sydney Accounting Research Centre.

Thornton, D.B. (1983), *The Financial Reporting of Contingencies and Uncertainties: Theory and Practice*, Vancouver: The Canadian General Accountants' Foundation, Research Monograph No. 5.

Tweedie, D.P. and Whittington, G. (1990), "Financial Reporting: Current Problems and Their Implications for Systematic Reform", *Accounting and Business Research*, Winter, pp. 87-102.

Westcott, S.H. and Seiler, R.E. (1986), *Women in the Accounting Profession*, New York: Marcus Weiner.

Zukerman, H. (1987), "Persistence and Change in the Careers of Men and Women Scientists and Engineers: A Review of Current Research", in Dix, L.S. (ed.), *Women: Their Underrepresentation and Career Differentials in Science and Engineering*, Proceedings of a workshop at the National Academy of Sciences, Washington, DC: National Academy Press.

Endnote

¹ The gender balance of the participants also represents the changing gender composition of the accounting profession as, of the 3,051 students currently registered with the Institute of Chartered Accountants in Ireland (ICAI), 1,729 (or 57 per cent) are male and 1,322 (or 43 per cent) are female. (Source: Student Registration, ICAI. I am grateful to Sharon Bradley of the Institute for furnishing me with these numbers.)